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ABSTRACT

The effects of an in-house workplace literacy program on an organization are examined. A small Canadian manufacturing plant that began a workplace literacy program called Learning in the Workplace in 1990 was the site of this case study research. The plant was CCL Custom Manufacturing, which specialized in household powder-based products. Four areas were explored: (1) the effects of in-house literacy programs on improving the basic skills of the members of the organization; (2) the effects of peer tutoring in the workplace; (3) the effects of organizational events on in-house workplace programs; and (4) the effects of partnerships in workplace literacy. The research indicated the following: an in-house program helped members of the organization improve their basic skills; peer tutoring was a catalyst to opening up communication channels across the organization and building workplace relationships; a stand-alone program was more vulnerable to organizational change than programs integrated into the training culture of an organization; and a workplace literacy partnership strengthened the program. (LB) Adjunct ERIC Clearinghouse on Literacy Education.

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Workplace Literacy: The Effects of an In-house Program on the Organization.

Abstract

Barbara Fretz

The purpose of this paper is to investigate the effects of an in-house workplace literacy program on an organization. A small manufacturing plant which began a workplace literacy program, called Learning in the Workplace, in September 1990 was the site of this case study research. Four areas were explored: 1) the effects of in-house literacy programs on improving the basic skills of the members of the organization, 2) the effects of peer tutoring (co-workers helping each other learn) in the workplace, 3) the effects of organizational events on in-house workplace programs, 4) the effects of partnerships in workplace literacy. The research indicated that: an in-house literacy program helped members of the organization to improve their basic skills ; peer tutoring was a catalyst to opening up communication channels across the organization and building workplace relationships; a stand-alone program, like this one, was more vulnerable to organizational change than programs integrated into the training culture of an organization; a workplace literacy partnership strengthened this program.

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Workplace Literacy: The effects of an in-house program on the organization

Background to Workplace Literacy Programs

In-house programs which address the literacy needs of the employees in an organization are a relatively new phenomenon in North America. Recently, however, many businesses have invested resources and time to delivery literacy programs to their employees who have limited basic skills.

Up until the last decade, workplace literacy levels were not a concern to management. However, the advent of computer technology changed the plant floor into an environment where higher skills are required. Blue collar workers became responsible for operating the new and sophisticated technologies. Employees whose jobs had not changed in twenty years were suddenly faced with job tasks requiring not only basic skills, but higher order skills such as analysis and problem-solving.

The capabilities of organizations to do on-site technical training is also affected by low levels of literacy. For example, in 1987 The Workplace Hazardous Materials Information System (WHMIS) emerged under the federal Hazardous Products Act. All workers exposed to hazardous materials were required to take "WHMIS training". What transpired in many workplaces was a realization by WHMIS trainers that employees could not read nor understand the WHMIS training materials. Some workers, like in our case study, could not find the right pages in the training manual.

Without improved literacy and technical skills, Canadian workforces will not be able to compete in a rapidly changing market. The pressure to increase literacy skills in North American workplaces is also coming from competitive markets overseas. In an attempt to curtail this problem, business, labour and education have tried to discover the most effective ways of ameliorating the basic skills of workers.

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Workplace literacy programs, especially in-house programs, are one solution which is becoming more popular.

Introduction to the Case Study

This paper reports on a case study research of an in-house literacy program called Learning in the Workplace (LWP). CCL Custom Manufacturing, Islington Plant (CCL), a custom manufacturing industry specializing in household powder-based products, was the site for this case study. CCL began its first workplace literacy program in September, 1990.

Because in-house basic skills programs are a new approach to literacy training, there is limited research on how these programs affect organizations. Therefore, this research looks at:

1) the effects of in-house literacy programs on improving the basic skills of the members of the organization:

- literacy skills- reading, writing, and math
- communication skills

2) the effects of peer tutoring (co-workers helping each other learn) in the workplace:

- communication across the organization
- building confidence and self-esteem
- building workplace relationships

3) the effects of organizational events on in-house workplace programs

- organizational restructuring

4) the effects of partnerships in workplace literacy

How was the data collected?

Data was collected over a ten month period, from the program's inception in September 1990 to June 1991 when the program was put on the backburner due to severe plant downsizing. Instruments of data collection included questionnaires, focus groups and one-to-one interviews with LWP participants, the LWP co-ordinator and shop floor supervisors. Interviews conducted during the first phase of the program (September- December, 1990) used focus group discussions with about 50% of LWP participants. Interviews in the second phase (January- June 1991) were carried out on a much smaller scale through one-to-one interviews with only fifteen interviewees. The interview sampling during the second phase is a limitation to this study.

Documentation of the LWP program such as monthly tutor report forms, the Organizational Needs Assessment Report, the Ministry of Education grant proposal, journal articles, and a TV news report were also reviewed.

1 EFFECTS OF AN IN-HOUSE LITERACY PROGRAM

Improving Basic Skills

The main goal of the LWP program was to upgrade the basic skills of its workforce. Due to changing management styles and modes of production, the term basic skills can have a wider scope than reading, writing, and math. Many employers view basic skills as much more than job-specific skills; they include the higher order skills of communication, problem-solving and decision-making. Basic "generic" skills such as reading, writing, and math serve as prerequisites to learning other skills (Carneval et al, 1988). Higher order skills are necessary for job promotion. For example, analytical skills are needed to operate high tech equipment (Hull & Sechler, 1987).

In an attempt to improve quality of production, management is placing more importance on changing employee attitudes by giving them more responsibility in their jobs (Natriello, 1989). At CCL a policy known as "The Employee Involvement/ Continuous Improvement" was introduced giving employees more responsibility over decision-making and problem-solving in their own work areas. This teamwork approach created a new set of skills which workers need to participate actively in the group process. For the purpose of this research basic skills are categorized into two groups:

- literacy skills (reading, writing, and numeracy)
- communication skills

Literacy Skills

The LWP program had a number of "little victories" according to the co-ordinator. Learners in the program made practical gains, for example, reading a paycheque notice, filling out a dental form, and reading a book to their child. Shop floor supervisors noticed improvements in literacy skills. One supervisor remarked that line operators were reading daily instructional memos, even in their spare time. Because the line operators were reading these memos, they were able to competently fill out reports based on the memos. Written communication improved according to tutors, learners, and supervisors. Spelling and grammar on work orders improved dramatically according to one supervisor. For example, skid sheets, sheets used to identify and describe materials placed on skids, were filled out more accurately as learners used longer and more complex sentences. Overall learners felt less anxious about writing and using technology such as computers.

Many learners came to realize that basic skills are an essential requirement to employment and these skills can be transferred to new workplaces. This was a crucial realization for a group of workers who eventually displaced from their jobs

at CCL. Both tutors and learners feared that unskilled workers would never find a job that pays as well as their present wage or find any job at all.

Communication

There was evidence that participants in the LWP program improved their communication skills. There was unanimous agreement by tutors, learners and supervisors that communication was better than before the LWP program was introduced. There was a general feeling that learners were articulating their messages and needs more clearly on the shop floor.

According to supervisors, learners were more willing to ask questions of their supervisors and paraphase ideas in order to understand and clarify orders. There also seemed to be a correlation between improved reading skills and better communication. One supervisor felt that because more workers were reading instruction memos, they could communicate to their supervisors any instructions which they had not understood.

Learners felt better about their ability to communicate. Said one learner, *"I don't know what my supervisor or workmates think, but I feel better "*. Learners, particulary ESL speakers, began using new vocabulary and idiomatic expressions to express their ideas which opened up communication between co-workers and supervisors. Moreover, improvements in English pronunciation by ESL speakers facilitated better communication. Several learners spoke out in public: one learner overcame his fear by eventually using the Pager with confidence; another learner made a public speech about the LWP program at the monthly General Meeting.

Not everyone felt that their communication abilities have improved. One learner wass still insecure about his progress, *"I have made some progress, but I still have trouble listening...usually I don't understand enough words"*. Nevertheless, *"communication is pretty good [at CCL]"*. This comment begs the question: Was the

training in this program not serving some skills areas such as listening comprehension?

2 EFFECTS OF PEER TUTORING IN THE WORKPLACE

Peer tutoring has been slowly gaining acceptance as a viable model for workplace literacy, especially in workplaces where training is done on the job and/or where co-workers are already sharing their skills. Peer tutoring occurs when *"workers who feel that they have rather solid literacy skills volunteer to be tutors to co-workers"* (Lewe 1991, p. 62).

Why use peer tutoring in the workplace? There are other approaches to basic skills training in the workplace. Most common among them is the use of a professional educator who develops a job-related curriculum. Advocates of peer tutoring do not criticize this approach. However, *"increasing technical and complex vocational literacy skills required of the work force might point to the use of peer tutoring and in-house support to determine learners' needs and to design a curriculum which response to those needs"* (Nore, 1990, p. 73). Vocational peer tutoring can help to bridge workplace skills and skills for everyday life. Although this approach does not suit all workers needs, in one in-house literacy pilot project tutors and learners were able to identify specific areas in which they required additional support (Nore, 1990).

Using the peer tutoring model at CCL proved to be an effective way for the organization to meet its goals of improving communication at all organizational levels and building the confidence and self-esteem of CCL workers. In addition to these goals, the peer tutoring model was integral in helping employees to build relationships across the organizational hierarchy.

Communication Across the Organization

There was evidence that communication improved across the organization between co-workers and between workers and supervisors. Before the LWP program, most supervisors assumed that the workers understood their instructions. During the program, supervisors became more aware of and sensitive to all workers communication needs, but in particular those who speak English as a Second Language (ESL). Conversely, several learners approached their supervisors for the first time and the communication barriers between them were finally broken down. Communication between co-workers improved, too. Supervisors noticed co-workers helping each other to read memos and bulletins, particularly native speakers of English helping ESL speakers.

Building Confidence & Self-Esteem

One of the most profound changes which occurred during the LWP program was the increased sense of self-worth amongst learners. Learners expressed feelings of power, inner strength, pride, and achievement leading to a higher level of self-confidence. The discovery that *"I can learn"* is empowering for workers who have been away from formal learning for many years. Learners who were reticient about returning to a learning environment quickly changed their attitudes as they succeeded in their learning goals. Once these individuals recognized the importance of their own learning, they became eager to and enthusiastic about learn new things.

Supervisors noticed learners opening up; they were less intimidated by superiors. They saw workers who were more capable, and more eager to learn new things and take on more responsibility. Tutors noticed that their learners were more independent and self-directed in their learning programs. For example, they were not passive students waiting for the tutor to fill them with knowledge, but set their

own goals, brought in their own materials, and asked for assessment of their learning progress.

Most learners reported feeling more confident and comfortable at work.*"I'm not so scared anymore."* , was the general sentiment. ESL speakers reported that they felt more comfortable trying to use new words. Moreover, learners were not ashamed to be learning in the LWP program; they identified with the program and were proud of their tutors. One learner finally told his wife of his involvement in the program and she began helping him at home. Another learner was so pleased with his successes that he reported them to his girlfriend.

Not all learners have experienced an increased sense of confidence. Several learners kept their involvement in the tutoring program a secret from their families. They feared ridicule and embarrassment, especially if they "fail". In a few cases learners were not meeting their learning goals and this caused a feeling of frustration and powerlessness.

Tutors also built their sense of self-confidence as they became more experienced in their role. Tutors reported that refreshing their previously held knowledge gained them more confidence. When their learners met a learning goal, tutors also felt successful. By contrast, when tutors were unable to help learners, they felt frustrated and inadequate. This happened in cases where there was a poor match and the tutor did not have the necessary skills to help the learner.

As a number of the tutors in the LWP program were supervisors, the peer tutoring model also provided a vehicule for the company to achieve its goals of "increasing the training and facilitation skills of those in supervisory positions"

Building Workplace Relationships

The LWP program helped to break down barriers and build relationships between people at different levels of the organization. The one-to-one peer tutoring

model was the catalyst. Supervisors, workers, and even senior management built friendships through the tutor-learner matches. As learners became more comfortable and began to trust their tutors, this attitude was transcended to the shop floor. Getting to know people more personally broke down fears of communicating with people at different levels and from different cultures. One supervisor admitted that becoming friends with a learner reminded him that people at other levels are "*human beings, too*".

Management also improved its relationship with its employees. Offering a basic skills upgrading program to all employees (on a cost-sharing basis) proved that the company cares about its workers. Management was sensitive to the plight of workers who lacked basic skills and they realized that some workers were having difficulty performing their jobs. Supervisors who were interviewed included "building relationships" in their definition of Learning in the Workplace.

There was evidence that workplace relationships were built across levels. At a micro-level, strong relationships were built between tutor and learner matches. The pairs were eager to meet each other for tutoring sessions as they derived enjoyment from the tutoring experience. One learner who was shy and anxious at first began to laugh and participate in discussions with the tutor. Learners began to feel a sense of attachment to their tutors. On the shop floor one might hear, *"There is MY tutor."*

At a macro-level, learners built relationships outside of the tutoring sessions. Since he befriended his tutor, one learner felt less shy to communicate and socialize with his co-workers. ESL speakers who improved their oral proficiency were able to communicate better and build friendships with co-workers.

Other members of the organization were indirectly affected by the LWP program. When the lay offs began, some supervisors tried to help displaced workers. One supervisor recognized the potential of an employee who had been a learner in

the LWP program. Because of this, the supervisor used his contacts to find the employee a new job.

3 EFFECTS OF ORGANIZATIONAL EVENTS ON THE LWP PROGRAM

As part of the organization, the LWP program was not isolated from events which took place within the company, but was integrated into the total organizational culture. It did not stand alone, but affected and was affected by the organization. While the workplace literacy program was set up to change members of the organization, the program was changed by events which took place inside the organization.

Organizational Restructuring

Six months after the LWP program began, CCL Custom Manufacturing went through some major organizational restructuring which affected all facets of the company including the LWP program. In January the company changed its name from Chempac Powder, A Division of CCL Industries to CCL Custom Manufacturing, Islington Plant as CCL branch plants were consolidated. By October 1991, 70% (130/186) of the workforce was laid off.

These changes had a profound effect on the LWP program. Due to severe downsizing of its operations, basic skills training was not viewed by management and some employees as a priority issue at that time. By June 1991, 36/62 (58%) LWP participants dropped out of the program due to lay offs or resignations. As lay offs continue into October 1991, more tutor/learner matches broke up and peer tutoring relationships dissolved. As one interviewee so poignantly stated," *You can't blame the LWP program for the dying excitement.*"

Supervisors, learners, and tutors recognized that the organizational climate had a negative impact of the LWP program in terms of levels of participation and attitudes toward the program. During the June interviews, program participants reported that morale was down, even amongst supervisors. People were feeling apathetic, helpless and frustrated. Due to these feelings, many LWP participants lost interest in the program. Because learners were worried about losing their jobs, they could not focus on learning. *"Why bother if the plant is going to close?"* , said a learner as he decided to quit the program. By July 1991, participation in the LWP program was down by more than 50% compared to October. For learners who remain in the program, they complained of a lack of continuity as matches broke up.

Although the picture appeared bleak, there were some positive results. Continued interested in the LWP program despite the lay offs shows that learners still wanted to learn. Learners felt that the LWP program was not a waste of time. Rather, they said that it was the wrong attitude to drop out of the program because the skills they learn would benefit them to gain employment elsewhere. Regardless of the plant, the LWP program should not be affected because *"it goes beyond this workplace"*.

4 THE EFFECTS OF PARTNERSHIPS IN WORKPLACE LITERACY

"Business is increasingly eager to be a partner in literacy solutions" (Jones, 1991, p. 48). Since business does not have the expertise in basic skills training, it can not be expected to tackle the issue on its own. Business does, on the other hand, have an important role to play as advocates for literacy.

The type of partnership model developed will depend on the needs and resources of the workplace as well as its conception of adult learning and training. Generally, there are three or four players: management, union, workers, and

educational service providers. Funders could also be considered indirect players, as the program is accountable to them.

The players involved in a partnership will be determined by the program model. In this case study, the partnership program model used was a peer tutoring-learner centred model. In this model, the worker is at the centre of the program; it is the worker who determines his or her learning needs, whether job-related or personal. The intention is that workers who control decision-making regarding their own learning programs will become empowered (Lewe, 1991).

Because CCL Custom Manufacturing is a non-unionized company, the main players were the workers, management, and the educational service provider. Each players supported the program in different ways. Workers were involved in planning and designing their own learning program. Management supported the program through sharing the cost of "leave time" with the learners, training tutors, and providing an in-house co-ordinator who was part of the senior management team.

The educational service provider also played a key role in the process. The Learning in the Workplace (LWP) staff at Frontier College (FC) a national literacy organization was chosen by CCL Custom Manufacturing to help the company set up their own Learning in the Workplace program. As an outside service provider , FC/LWP's role was one of an educational consultant. Initially, FC/LWP staff conducted an Organizational Needs Assessment (ONA) of the company's learning and training needs. Once the company decided to proceed with the LWP program, FC/LWP oriented thirty potential tutors. After the training component was completed, the consultant took on an advisory/ resource role and the in-house co-ordinator took control of implementing the program. During this time FC/LWP staff worked closely with the co-ordinator consulting on issues such as writing clear

language documents, developing learning materials, and conducting the program evaluations.

SUMMARY

Successes

One measure of success is whether a program achieved its stated goals and objectives. The organization had identified these goals for the LWP program:

i) increasing basic skills levels of CCL workers

ii) building confidence and self-esteem of CCL workers

iii) increasing the training and facilitation skills of those in supervisory positions

iv) providing CCL workers with the communication skills necessary to participate fully in the "Emplyee Involvement/ Continuous Improvement" program

v) increasing the capacity of CCL, through building in-house expertise, to maintain a self-sustaining program

Of the original goals identified by the organization, all five had been affected by the LWP program. After ten months in operation, basic skills, self-confidence, training and faciliation skills, and communication were improving. Moreover, the in-house co-ordinator had built a program which was able to function without outside intervention.

The size of the Learning in the Workplace program and its longevity are also measures of its success. During the first phase (September- December, 1990) 40% the employees, including senior management, at CCL were participants in the LWP program. Participation declined slightly in the second phase (January- June, 1991)

with about 30% participation. Energy for the program remained high up until July when many employees were laid off or resigned.

[The fact that the program continues despite massive plant lay offs shows that there is still support for the LWP in the organization. At the time of this writing, the program is approaching its first anniversary. Although present participation rates have dropped to only 20% of the remaining workforce, it must be noted that the workforce at CCL has been scaled down dramatically.]

Another success which is less tangible, but worthy of mention, is that LWP participants enjoyed participating in the program. Tutors and learners described the tutoring sessions as fun, relaxing, and enjoyable.

Reasons for Success

The LWP program succeeded for several reasons. In an interview with the Manager of Human Resource Development who acted as the program co-ordinator, she cited team effort and senior management support as the two leading factors. The co-ordinator, herself, laid the foundations for the program's success. As a senior manager and a participant in the LWP program (she also tutored several learners), the co-ordinator had a unique position in the organization. Because she had direct contact with tutors, learners, and management, she kept the lines of communication open. Having in-house support of a senior management level as well as a person who was committed to the program goals is essential to the success of a workplace literacy program.

Not to be overlooked is the impact of publicity on the success of this program. The timing of this program seemed to coincide with awakening media attention to workplace literacy training. During the first nine months of the LWP program, two journals, Canadian Business (February, 1991) and Accident Prevention (September, 1990) cited the LWP program at CCL Custom Manufacturing as a model for

workplace literacy. The media coverage did more than inform the general public about the issue of basic skills training in Canadian workplaces. More importantly, the publicity it received impressed upon the LWP participants and all CCL employees that this program was valuable.

Conclusions

This research looks at four areas:

1) the effects of in-house literacy programs on improving the basic skills of the members of the organization

The LWP program directly benefitted members of the organization who needed basic skills upgrading. The program was more than just a way to improve the reading, writing, math, and job-specific skills of employees. Because learners worked with their tutors to determine their own learning programs, their skills in goal setting, negotiation, problem-solving, interpersonal communication, and teamwork also improved.

2) the effects of peer tutoring in the workplace

Peer tutoring relationships helped learners' to feel more confident and comfortable about their ability to learn and do their job. Consequently, learners' self-esteem heightened and this was translated to the plant floor. Communication channels opened up between levels as learners became more willing to communicate their needs and as they built trusting relationships with others in the workplace. In particular, workers became more actively involved with their work teams. This research does not profess that communication issues no longer exist. For example, some ESL speakers still need to develop their oral (speaking and listening) communication skills. There were small improvements, not startling changes.

3) the effects of organizational events on in-house workplace programs

Even though the LWP was a self-sustaining program at the time of the laidoffs, it was affected by the organizational restructuring. This case study indicates that a stand-alone program which is not integrated into the workplace training culture can be more susceptible to organizational changes.

4) the effects of partnerships in workplace literacy

Developing a workplace literacy partnership strengthened the LWP program. While the external consultant had more content area expertise, the in-house co-ordinator had context understanding. Reciprocal relationships, such as this one, in which each partner shares their knowledge and expertise to improve the program, help to bridge the gap between education and business.

Further Questions

Although this study has pointed to some of the major issues of basic skills training in the workplace, further research of other in-house literacy programs is needed and other questions need to be asked.

1. How can literacy be integrated into existing training components?
2. How can workplace literacy programs address the special needs workers, e g. ESL speakers?
3. To what extent is peer tutoring an effective means of delivering literacy? At what point should workers learn in groups?
4. How can the work team be used to perpetuate literacy learning?
5. What are the negative impacts of workplace literacy programs on the organizational culture?

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